

Perinatal Depression in Rhode Island

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Research has shown that maternal psychological well-being during pregnancy has a significant influence on birth outcomes such as birth weight and length of gestation. Perinatal depression (before, during and after pregnancy) affects the mother and can negatively impact a child's development. Untreated major depression may lead to poor nutrition, smoking, drinking, premature labor, and low birth weights.¹ It has also been found that depressed women have higher levels of stress which can also adversely affect the fetus.² Although much national research has been conducted on perinatal depression, less is known about its relationship with maternal behavior and wellness in Rhode Island.

METHODS

Data were analyzed from the Rhode Island **Pregnancy Risk Assessment Monitoring System** survey (PRAMS) of mothers who recently gave birth. The survey includes questions about behaviors and experiences before, during and after pregnancy. During 2004-5, a total of 3,991 women were sampled and 2,930 completed the survey, yielding a 75.3% weighted response rate. Maternal depression was examined during three periods: before, during and after pregnancy. Depression was indicated if there was a medical diagnosis before or during pregnancy or if there was self-reported depression after the baby's birth. The mother's experience during pregnancy was also considered. The following maternal behaviors, characteristics and psychosocial issues were analyzed in conjunction with maternal depression: unintended pregnancy, delayed prenatal care, cigarette smoking during pregnancy, alcohol use during pregnancy, domestic abuse during pregnancy, three or more stressors during the year before the baby's birth, activity limitation, breastfeeding, and fussy baby. Poor birth outcomes were measured by low birth weight (<2,500 grams), preterm birth (<37 weeks of gestational age) and **neonatal intensive care unit (NICU)** use. All analyses were performed using survey data analysis software that accounts for the complex sample survey design (SUDAAN). We employed chi-square tests to determine whether there is an association between mental health during pregnancy and maternal behaviors and birth outcomes. [Note: Because the overall number of respondents diagnosed with depression during pregnancy was relatively small (n = 226), we did not compare behaviors and birth outcomes for those who received treatment for their depression

with those who did not receive treatment.]

RESULTS

More than one in ten (11.0%) of respondents indicated they had been diagnosed with depression in the 12 months before pregnancy; 7.7% were diagnosed with depression during pregnancy; and 14.1% reported having postpartum depressive symptoms since their baby was born. More than one in five (21.6%) described their pregnancy as moderately hard, very hard or one of the worst times in their lives. (Figure 1)

Women were more likely to be diagnosed with depression during pregnancy if they were aged 20-24 (11.5%), were unmarried (12.2%), had less than a high school education (12.2%), had annual household incomes less than \$25,000 (12.5%), had public health insurance (13.5%), or were enrolled in the **Women, Infants and Children (WIC)** Nutritional Program (12.5%). (Figure 2) The prevalence of depression did not differ significantly by race and ethnicity.

Compared to women without depression, women who were diagnosed with depression during pregnancy were significantly more likely to: report their pregnancy was unintended (50.6% vs 37.4%; $p=0.0017$); have delayed prenatal care (23.0% vs 13.8%, $p=0.0103$); be obese before their pregnancy (29.0% vs 18.5%, $p=0.0059$); smoke during pregnancy (29.3% vs 10.0%, $p<0.0001$); experience domestic abuse during pregnancy (10.8% vs 1.9%, $p=0.0004$); experience three or more stressors (62.2% vs 22.8%, $p<0.0001$); be limited in activities (22.8% vs 5.6%, $p<0.0001$); have a low birth weight baby (10.0% vs 6.7%, $p<0.0001$); deliver a preterm baby (13.3% vs 9.5%, $p=0.0121$); have their baby in the NICU (16.2% vs 9.6%, $p=0.0158$); and report difficulty calming their baby (14.3% vs 7.3%, $p=0.0162$). Women who were diagnosed with depression during pregnancy were also less likely to ever breastfeed compared to women who

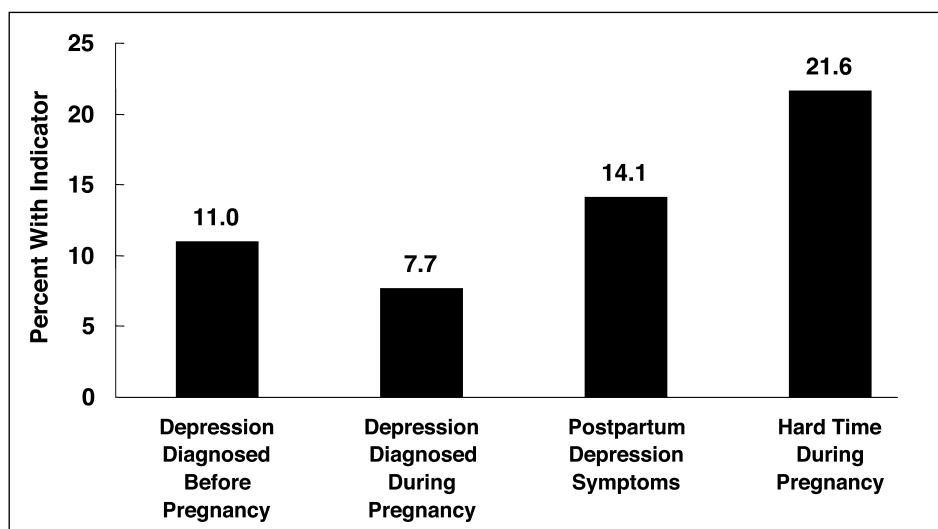


Figure 1. Selected indicators of maternal depression, Rhode Island, 2004-2005

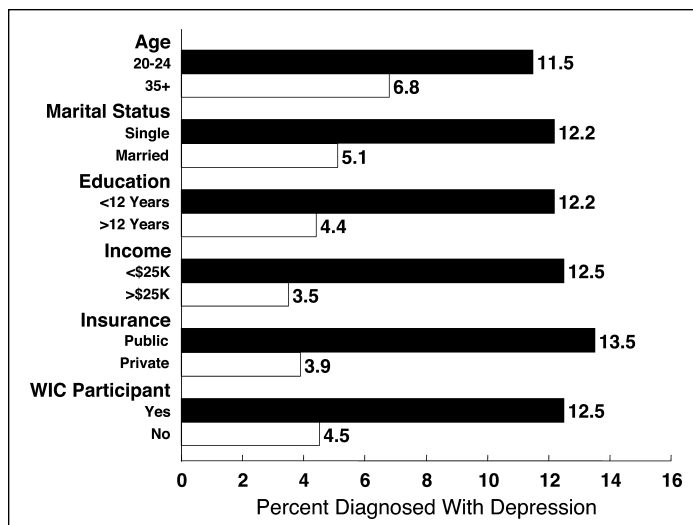


Figure 2. Women diagnosed with depression during pregnancy, by selected characteristics, Rhode Island, 2004-2005

were not diagnosed with depression (62.2% vs. 71.8%, $p = 0.0207$). The likelihood of drinking alcohol during the last three months of pregnancy was not significantly different for women with diagnosed depression (11.6%) compared to women who were not diagnosed with depression (9.4%). (Figure 3)

Similar results were seen among women who were diagnosed with depression before pregnancy, among women who described the time during their pregnancy as hard, and among women who reported symptoms of postpartum depression.

In terms of treatment, just over half (52.7%) of the 226 women who were diagnosed with depression during pregnancy reported taking prescription medications during their pregnancy, more than half of the respondents (55.3%) indicated they had received counseling for their depression during their pregnancy, and nearly three-fourths (74.6%) stated their health care provider had talked to them about the benefits and risks of taking antidepressants during pregnancy.

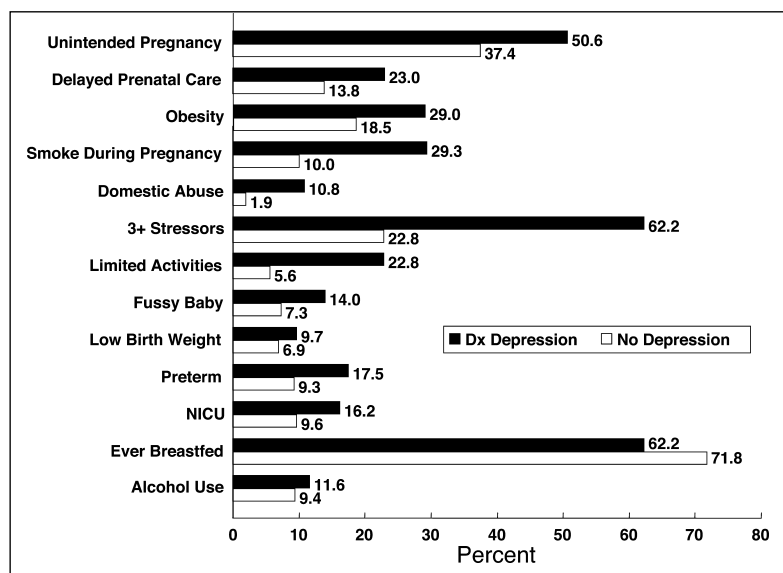


Figure 3. Depression during pregnancy by selected behaviors, characteristics and outcomes, Rhode Island, 2004-2005

DISCUSSION

Maternal depression during pregnancy is a significant risk factor for poor birth outcomes and the well-being of mother and child. Many factors need to be taken into consideration when determining treatment for perinatal depression. For example, psychotherapy can help with milder symptoms, but antidepressant medications are often needed for more severe depression.¹ However, there are concerns about pregnant women using medications due to the possibility of harming the fetus. Rhode Island may want to consider implementing a toll-free number that links primary care physicians to psychiatrists and to information about medications to manage depression during and after pregnancy (which was implemented in Illinois).³

National recommendations for preconception health include screening for social and mental health concerns (e.g., depression, social support, domestic violence and major psychosocial stressors).^{4,5} Women with identified risks should be offered counseling, testing and interventions. Other strategies to help assure that perinatal depression is identified and treated early include: providing outreach and education to the general public and health care providers; strengthening partnerships with mental health and social service agencies around perinatal health issues; and providing home visits and peer support for women with diagnosed depression.

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Disclosure of Financial Interests

Samara I. Viner-Brown, MD, Hyun K. Kim, PhD, and Rachel Cain have no financial interests to disclose.

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